

- U-bracket low profile: 38mm
- High power density 4.7w/in³
- Universal AC input / full range
- Built in active PFC circuit compliance to EN61000-3-2
- Active AC surge current limiting
- Protections: Short circuit/Over load/Over voltage /Over temperature
- Free air convection for 150W and forced air convection for 225W
- 3 years warranty

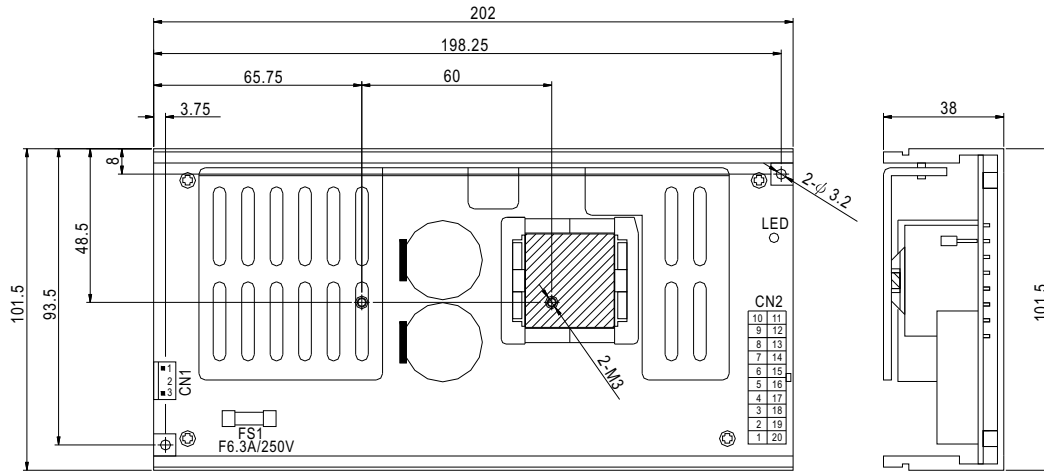


SPECIFICATION

| MODEL | USP-225-3.3 | | USP-225-5 | | USP-225-12 | | USP-225-15 | | USP-225-24 | | USP-225-48 | | | |
|------------------------|--|--|--|------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| OUTPUT | DC VOLTAGE | 3.3V | | 5V | | 12V | | 15V | | 24V | | 48V | | |
| | RATED CURRENT | 40A | | 40A | | 18.7A | | 15A | | 9.4A | | 4.7A | | |
| | CURRENT RANGE | 0 ~ 40A | | 0 ~ 40A | | 0 ~ 18.7A | | 0 ~ 15A | | 0 ~ 9.4A | | 0 ~ 4.7A | | |
| | RATED POWER | 132W | | 200W | | 224.4W | | 225W | | 225.6W | | 225.6W | | |
| | RIPPLE & NOISE (max.) Note.2 | 100mVp-p | | 100mVp-p | | 100mVp-p | | 100mVp-p | | 150mVp-p | | 250mVp-p | | |
| | VOLTAGE ADJ. RANGE | 2.97 ~ 3.6V | | 4.5 ~ 5.5V | | 10.8 ~ 13.2V | | 13.5 ~ 16.5V | | 21.6 ~ 26.4V | | 43.2 ~ 52.8V | | |
| | VOLTAGE TOLERANCE Note.3 | ±2% | | ±2% | | ±2% | | ±2% | | ±2% | | ±2% | | |
| | LINE REGULATION | ±0.5% | | ±0.5% | | ±0.5% | | ±0.5% | | ±0.5% | | ±0.5% | | |
| | LOAD REGULATION | ±1.0% | | ±1.0% | | ±1.0% | | ±1.0% | | ±1.0% | | ±1.0% | | |
| SETUP, RISE, HOLD TIME | 500ms, 30ms, 20ms/230VAC | | | | 1200ms, 30ms, 20ms/115VAC at full load | | | | | | | | | |
| INPUT | VOLTAGE RANGE | | 90 ~ 264VAC | | 127 ~ 370VDC | | | | | | | | | |
| | FREQUENCY RANGE | | 47 ~ 63Hz | | | | | | | | | | | |
| | POWER FACTOR | | PF>0.93/230VAC | | PF>0.97/115VAC at full load | | | | | | | | | |
| | EFFICIENCY (Typ.) | | 72% | | 77% | | 85% | | 84% | | 87% | | 86% | |
| | AC CURRENT | 115VAC | 2.2A | | 3.3A | | | | | | | | | |
| | | 230VAC | 1.1A | | 1.6A | | | | | | | | | |
| | INRUSH CURRENT (max.) | | 20A/115VAC | | 30A/230VAC | | | | | | | | | |
| LEAKAGE CURRENT | | <3.5mA / 240VAC | | | | | | | | | | | | |
| PROTECTION | OVER LOAD | | 105 ~ 150% of rate load Protection type : Constant current limiting, recovers automatically after fault condition is removed | | | | | | | | | | | |
| | OVER VOLTAGE | | 3.6 ~ 4.4V | | 5.5 ~ 7.4V | | 13.2 ~ 16.3V | | 16.5 ~ 20.2V | | 26.4 ~ 32.4V | | 52.8 ~ 64.8V | |
| | OVER TEMPERATURE | | 95°C ±5°C (RTH2 : Detect on heatsink of power transistor) Protection type : Shun down o/p voltage, recovers automatically after temperature goes down | | | | | | | | | | | |
| ENVIRONMENT | WORKING TEMP., HUMIDITY | | -10 ~ +65°C (Refer to output load derating curve), 20 ~ 90% RH non-condensing | | | | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | | -40 ~ +85°C, 10 ~ 95% RH | | | | | | | | | | | |
| | TEMP. COEFFICIENT | | ±0.03%/°C (0 ~ 50°C) | | | | | | | | | | | |
| | VIBRATION | | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | | | | | | | |
| SAFETY & EMC | SAFETY STANDARDS | | UL60950, TUV EN60950 Approved | | | | | | | | | | | |
| | EMI CONDUCTION & RADIATION | | Compliance to EN55022 (CISPR22) Class B | | | | | | | | | | | |
| | HARMONIC CURRENT | | Compliance to EN61000-3-2,-3, Class A | | | | | | | | | | | |
| | EMS IMMUNITY | | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, Light industry level, criteria A | | | | | | | | | | | |
| | WITHSTAND VOLTAGE | | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC | | | | | | | | | | | |
| ISOLATION RESISTANCE | | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC | | | | | | | | | | | | |
| OTHERS | MTBF | | 220K hrs min. | | MIL-HDBK-217F (25°C) | | | | | | | | | |
| | DIMENSION | | 202*101.5*38mm (L*W*H) | | | | | | | | | | | |
| | PACKING | | 0.85Kgs/pcs, | | 16pcs/13.6Kgs/0.76CUFT | | | | | | | | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> | | | | | | | | | | | | | |

Mechanical Specification

Case No. 928 Unit:mm



AC Input Connector (Cn1) : JST B3P-VH or equivalent

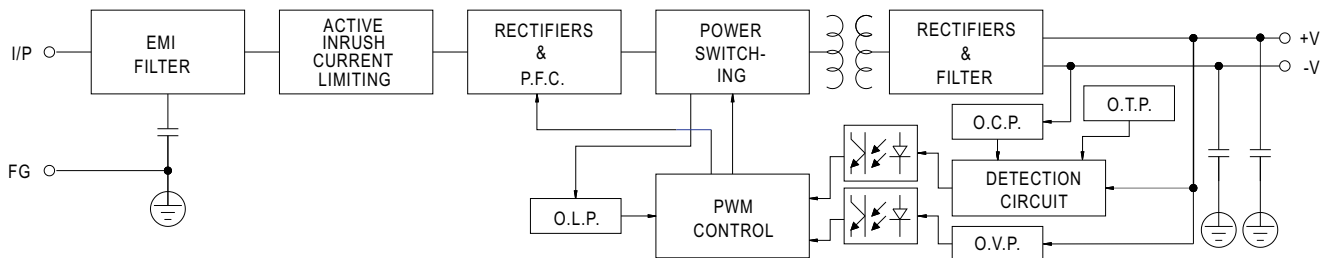
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|----------------|------------------|
| 1 | AC/N | JST VHR | JST SVH-21T-P1.1 |
| 2 | No Pin | ----- | ----- |
| 3 | AC/L | JST VHR | JST SVH-21T-P1.1 |

DC Output Connector (Cn2) : MOLEX 39-29-9126 or equivalent

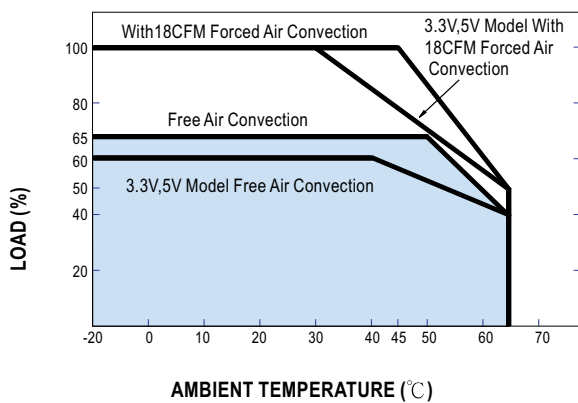
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|--------------------------|
| 1~5 | +V | MOLEX 5557 or equivalent | MOLEX 5556 or equivalent |
| 6~15 | -V | | |
| 16~20 | +V | | |

Block Diagram

fosc : 100KHz



Derating Curve



Static Characteristics (5V)

